



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/628,768 | 07/28/2003 | Raymond F. Ryan | 5011-017 | 5781 |

25184 7590 07/20/2004

WILLIAM J. MASON
MACCORD MASON PLLC
POST OFFICE BOX 1489
WRIGHTSVILLE BEACH, NC 28480

EXAMINER

PHAM, MINH CHAU THI

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1724

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,768

Applicant(s)

RYAN ET AL.

Examiner

Minh-Chau T. Pham

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/15/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 8 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Thakur et al (6,623,538 B2) or Landy (4,548,627).

Thakur et al disclose a portable sterile laminar air flow device cabinet comprising a work chamber, a single fan (S) for conveying air from the discharge opening to the return air inlet, a first HEPA filter (B) between the fan and the discharge opening, a second HEPA filter (U) between the exhaust port and the work chamber, and an exhaust port downstream of the fan and the fan being the only means for conveying air within the cabinet (see Fig. 3; col. 2, lines 32-40). Landy discloses a biological laminar air flow safety cabinet comprising a work chamber, a single fan (30) for conveying air from the discharge opening to the return air inlet, a first HEPA filter (32) between the fan and the discharge opening, a second HEPA filter (34) between the exhaust port and the work chamber, and an exhaust port downstream of the fan and the fan being the only means for conveying air within the cabinet (see Fig. 8; col. 3, lines 13-36). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a single fan in the laminar air flow safety cabinet as taught by either Thakur et al or Landy to provide a compact, portable, lightweight, low power

consuming, convenient, versatile and sterile laminar airflow device, useful in obtaining a workspace substantially devoid of airborne particulate contaminants.

Claims 6, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Thakur et al (6,623,538 B2) or Landy (4,548,627), in view of Calsteren et al (3,944,405).

Claims 6, 9 and 17 call for an exhaust port including a filter. Calsteren et al disclose an exhaust port of a down flow chamber having a filter (16 in Fig. 2; col. 3, lines 53-55; col. 4, lines 3-8). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a filter at the exhaust port of the laminar airflow device of either Thakur et al or Landy so that the contaminated air is efficiently filtered before being exhausted into the atmosphere.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Whitfield (3,273,323) discloses a laminar flow air hood.
- Krainiak et al (5,711,705) disclose an isolation work station.
- Janus et al (6,283,241 B1) disclose a protective filtration system.
- Kotliar (6,508,850 B1) discloses a clean air tent system.
- Mears et al (4,927,438) disclose a horizontal laminar air flow work station.
- Peters (4,832,717) discloses a clean air cabinet.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Minh-Chau Pham
Patent Examiner
Art Unit: 1724
July 19, 2004